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ABSTRACT

The results of a study to identify criteria that could help select applicants to medical school who have a lasting commitment to family medicine are presented. During the past 15 years major efforts have been made to increase the number of family physicians in the United States. Although primary care programs attract more students whose initial career goal is family practice instead of traditional programs, many of them switch to a specialty before they become residents. Switches occur in spite of the well publicized oversupply of specialists. This retrospective, longitudinal study asked practitioners their reasons for staying in family medicine or for shifting to a specialty. Their entrance information was also collected. Based on data available about the students at entrance, two data sources were used (medical school folders and phone interviews with graduates). Results indicate demographic and academic characteristics, father's education, and Grade Point Average in college have good predictive validity for stability in family medicine. Personality characteristics are also important, with the "sensing" and "feeling" personality types more common in family physicians than in specialists. More shifters are "perceptive" types. Those medical schools that wish to increase graduates in family medicine could select them according to specified criteria unique to their school or apply criteria developed in this study. An appendix provides a form for selection criteria. Contains 16 references. (SM)

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WHO GOES INTO FAMILY MEDICINE?

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Longitudinal Evaluation Project

University of New Mexico

School of Medicine

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Introduction

During the past 15 years major efforts have been made to increase the number of family physicians in the United States. These efforts were supported by the creation of primary care programs in medical schools and residencies in family medicine. Although primary care programs attract more students whose initial career goal is family practice than traditional programs, many of them switch to a specialty before they become residents. Switches occur in spite of the well publicized oversupply of specialists (Tarlov, 1988; Babbott et al. 1988).

Why do medical students lose interest in family medicine? Why does loss of interest occur even in those programs where the environment supports and reinforces pursuit of family medicine? The purpose of this study is to identify criteria which could help to select applicants to medical school who have a lasting commitment to family medicine and to test the application of such criteria in selection.

Methodology

Design. This is a retrospective, longitudinal study asking practitioners their reasons for staying in family medicine or for shifting to a specialty. Entrance information was also collected retrospectively for the same practitioners. The generalizability of the results is limited by the fact that the sample was taken from a single institution and that the sample is small. The design provides for testing the validity of the findings for selection in the same institution where the study was done.

Sample. Entering students at the University of New Mexico School of Medicine can choose between two tracks: the traditional and

the "Primary Care Curriculum" track (PCC). All students in PCC are volunteers and more of them are attracted to family medicine at entrance than those in the traditional track. Of 88 students in six consecutive PCC classes from 1983-88, 43 or 48% declared family medicine as their career goal at entrance, but 56% of this group switched to a specialty by the time they became residents. Only five students whose career choice was uncertain at entrance later entered family medicine residency programs. These five graduates are not included in the sample.

Sources of data

Based on information available about students at entrance, two data sources were used: (1) the medical school folders and (2) telephone interviews with graduates from the classes of 1983, 1984 and 1985. Medical school folders yielded the following information:

Demographic: age, sex, parents' education and occupation, present family status, location of primary childhood residence

Academic: type of college attended, academic major, science and non-science college GPA, and MCAT scores,

Personality: Notes from admission interviews; essays written by students for admission, leisure activities in college, work experiences, and personality test scores

Career choice: career choice at entrance and at residency.

Telephone interviews were guided by 16 structured questions, grouped into three categories: reasons for career choice, leisure

interests and personal values. All telephone interviews were tape recorded.

Results

1. Which entry characteristics differentiated future family physicians from future specialists? Data pertaining to demographic, academic and personal characteristics show the following differences:

   a. More FPs were raised in a small town
   b. More FPs attended a public college
   c. More FPs were male, over 25 and married
   d. More specialists obtained a higher science GPA in college
   e. More specialists tended to be Perceptive types on the MBTI, a personality test (Myers-Briggs and McCaulley, 1985). (Perceptive types live in a flexible, spontaneous way, are imaginative and stimulating.)

2. What motivated stable graduates to stay with FM? A genuine desire to be of service to others, to provide comprehensive patient care, community-based family care and to work in a small community, were the major reasons. Stable graduates also perceived the opportunity to learn new and specific procedures and to work with their hands as an advantage. They saw themselves as mature and tolerant individuals and had confidence in their ability to become competent and caring physicians. The preceptorship experience provided during the primary care program strengthened their decision. Faculty in FM were viewed as significant and positive role models.

3. What influenced shifting physicians to change to a specialty? They valued the intellectual challenge of medicine and wanted to focus on a particular area. Their need to explore ideas was stronger

than their need for close patient contact. They expressed discomfort with the amount of information and knowledge required of family physicians. Although many shifters were high achievers, they were less confident of their ability than the stable group and tended to be self-critical. They were seeking certainty regarding patient problems and medical interventions. They attempted to control their time both in a professional and personal sense. Productivity pressures in FM, i.e. seeing more patients with less time allocated for each, were viewed negatively. Exposure to the community preceptorship during medical school focused their attention on the insufficient depth inherent in FM, the time pressures and the limiting nature of small town living, all of which dissuaded them from pursuing family medicine.

4. Did preference for FM at entrance help to predict future career choice? Less than half of those whose initial preference was FM remained stable in this goal; 56% shifted to a specialty.

Discussion

Many of our findings have been supported in the literature which suggests that they should be more widely useful in the selection process than just in one medical school. Demographic and academic characteristics, particularly residence in a rural area or small town, father's education, and GPA in college, have good predictive validity for stability in family medicine (Burkett and Gelula, 1982; Culleson et al. 1976; Rabinowitz, 1987; Johnson, 1983). The "people orientation" of family physicians, as an important motivator for their career choice, has also been widely documented (Wilson and Hallett, 1985; Calkins et al., 1987). The personality types of

stable and shifting graduates, as measured on the Myers-Briggs Type Indicator, were not significantly different in our study, but it was found that Sensing and Feeling types are more common in family physicians than in specialists (Friedman et al. 1984, 1988; Myers and McCaulley, 1985). In our study a marginally significant trend was observed for more shifters to be Perceptive types.

Many schools have attempted to increase the number of family physicians by modifying the curriculum. For example, many primary care programs have introduced community preceptorships to expose students to family physicians early in medical school. In our program this occurs at the end of the first year. During the interviews mixed reactions were elicited from the graduates concerning the influence of this experience on their career choice. Stable graduates reacted positively but shifting graduates found fault with several aspects of the practice and began to search for alternative career goals. It seems that an educational experience is received according to the person's needs. Shifters realized that the lack of depth inherent in family practice, along with time pressure and the amount and variety of knowledge required, is contrary to their needs to explore problems thoroughly and achieve a high degree of certainty before intervention occurs.

The above observation fits in with the bulk of the curriculum impact studies, which indicate that medical programs can help to maintain the career interests of those students who come with them, but that special curricular offerings have, for the most part, failed to sway career choices (Glasser et al. 1982; Wakeford 1987; Katz et al. 1984).

It seems that the student's demographic, academic and personal characteristics are largely responsible for stability or shifts away from family medicine. This fits in with the conclusion of Ernst and Yett (1985, p. 237), based on their comprehensive review of the career choice literature in Medicine: "Physicians' taste for specialties and locations, reflected in their background and personality traits, seem to affect their career decision more than either financial considerations or learning experiences".

Since demographic, academic and personality characteristics are stable when students enter medical school, increasing the number of family physicians depends largely on selection. To investigate the validity of our selection criteria a pilot study was done.

Validation of selection criteria

Selection criteria for stable and shifting graduates were listed (Appendix A). The entrance documents of 30 graduates from the regular program were reviewed "blind" against these criteria. All 30 graduates declared family medicine to be their career goal initially. The folders were sorted into two groups: stable family physician or shifter. Since all 30 graduates were already in practice, or in the last year of their residency, it was possible to check our predictions against reality. Of 30 graduates the career choices of 25 were correctly identified as FM or specialists. Thus, correct prediction occurred in 83% of the cases, considerably better than chance.

Conclusion

Those medical schools that wish to increase graduates in Family Medicine could select them according to specified criteria which is unique to their school or apply criteria developed in this study. It

is probable that these criteria would apply to state supported medical schools rather than private institutions.

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APPENDIX A

Selection Criteria

Instructions: Complete one form for each applicant. Write in the "Applicant" column those numbers and/or letters, corresponding to items in Columns I and II, that apply to this applicant. Use criteria from both columns when relevant. Get information from the applicant's written document as well as the admission interview(s).

Applicant: _____
Name

I Criteria for Stable FM	II Criteria for Specialists	Number	Letter
Demographic	**Demographic**		
1 Sex: Male	A Male or female	___	___
2 Age: Over 25	B Any age	___	___
3 Married	C Single or married	___	___
4 Father: not professional	D Father professional	___	___
5 Grew up in small town or rural area	E Grew up in town or city	___	___
Academic	**Academic**		
6 Total MCAT 54 and below	F Total MCAT 55 and above	___	___
7 Science GPA 3.49 and below	G Science GPA 3.5 and above	___	___
8 Public college	H Public or private college for part or all of higher education	___	___
Leisure activities	**Leisure activities**		
9 Groups (scouts, community religious, varsity etc.)	I Art, music, travel, sports	___	___
10 Sports		___	
11 Hobbies: working with hands		___	
Personality	**Personality**		
12 Self-confident	J Self-critical	___	___
13 Wants to help, nurture, serve	K Concerned with status/ prestige	___	___
14 Humanistic over scientific interests	L More scientific than humanistic interests	___	___
15 Religious	M Seeks intellectual challenge	___	___

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